

in the shin areas, although aspects are not limited to these locations. Insulation zones may be located in other desired/suitable locations.

[0091] FIG. 12 depicts insulation zones within an athletic top 1200 in accordance with an aspect of the technology described herein. As shown in the perspective view of FIG. 12, the athletic top 1200 comprises a chest vented-insulation section 1210, right and left-shoulder vented-insulation sections 1220, and upper right and left-arm vented-insulation sections 1232. FIG. 13 depicts another perspective view of the athletic top 1200 and illustrates more clearly the right-shoulder vented-insulation section 1220 and the upper right-arm vented-insulation section 1232 in accordance with an aspect of the technology described herein. The garment/garment base layer may be constructed from a mesh material, or a material having moisture-wicking or moisture-management properties. The construction of a garment, for example, as shown in garment 1200, will increase comfort for a wearer as the need for layering multiple garments together may be eliminated by providing thermal insulation to only those areas in the garment configured to cover thermally sensitive or most exposed areas of the wearer's body that would benefit from having a thermally protective layer. Another advantage of a garment construction with zonal thermal insulation is that there is no bulkiness impeding motion (as in conventional thermally insulated garments) and therefore, the wearer is afforded to have greater range of motion, especially when provided in garments that are configured to conform to the wearer's body when worn, such as garment 1200.

[0092] Turning now to FIG. 14, insulation zones within compression pants 1400 are shown, in accordance with an aspect of the technology described herein. The pants 1400 are another example of garments that are configured to conform to the wearer's body when worn, and comprise a right-thigh vented-insulation section 1410 and a left-thigh vented-insulation section 1420. The pants 1400 also comprise a right-shin vented-insulation section 1430, and a left-shin vented-insulation section 1432. In exemplary aspect, the compression pant 1400 may comprise just the right-thigh vented-insulation section 1410 and the left-thigh vented-insulation section 1420. This aspect is shown in FIG. 15 which depicts compression pants 1500 having a right-thigh vented-insulation section 1510 and a left-thigh vented-insulation section 1520.

[0093] Turning now to FIG. 16, insulation zones within an athletic top 1600 are shown, in accordance with an aspect of the technology described herein. The athletic top 1600 comprises a right-chest vented-insulation section 1610 and a left-chest vented-insulation section 1612. The athletic top 1600 also comprises a left and right-shoulder vented-insulation sections 1614, upper left and right-arm vented-insulation sections 1616, and left and right-forearm vented-insulation sections 1618. Turning now to FIG. 17, a rear-view of the athletic top 1600 illustrates a right-back vented-insulation section 1620 and a left-back vented-insulation section 1630, in accordance with an aspect of the technology described herein.

[0094] Turning now to FIG. 18, insulation zones within an athletic top 1800 are shown, in accordance with an aspect of the technology described herein. The athletic top 1800 comprises a chest vented-insulation section 1810, right and left-shoulder vented-insulation sections 1814, upper right and left-arm vented-insulation sections 1816, right and

left-arm forearm vented-insulation sections 1812, and right and left-side vented-insulation sections 1818 (only the left-side vented-insulation section 1818 is shown in FIG. 18). Turning now to FIG. 19, a rear-view of the athletic top 1800 further shows a back vented-insulation section 1820 and the right-side vented-insulation section 1818 in accordance with an aspect of the technology described herein.

[0095] Turning now to FIG. 20, insulation zones within a fleece top/jacket 2000 are shown, in accordance with an aspect of the technology described herein. The fleece jacket 2000 comprises a left-chest vented-insulation section 2004 and a right-chest vented-insulation section 2008. The body 2002 of the fleece jacket 2000 may comprise a breathable fleece material. A zipper 2006 can provide entrance to a pocket (not shown). The pocket can be constructed of mesh or another breathable material that works with the vented-insulation section 2004 to facilitate the transfer of heat and moisture through the fleece jacket 2000.

[0096] Turning now to FIG. 21, insulation zones within a hooded jacket 2100 are shown, in accordance with an aspect of the technology described herein. The hooded jacket 2100 comprises a left-chest vented-insulation section 2112 and a right-chest vented-insulation section 2110. The jacket 2100 may further comprise a hood 2118. The jacket 2100 also comprises a right-neck vented-insulation section 2114 and a left-neck vented-insulation section 2116, which might also align with a mouth and/or nose region of a wearer. As such, the right-neck vented-insulation section 2114 and the left-neck vented-insulation section 2116 might help to facilitate transfer of moisture, heat, and gas (e.g., carbon dioxide) away from a lower-face region of the wearer.

[0097] Turning now to FIG. 22, a flow chart showing an exemplary method 2200 of making a vented garment is provided. The vented garment could be a jacket, a vest, pants, full body suit, and the like and may comprise any of the configurations as described herein. At step 2210 an exterior panel, a corresponding middle panel, and an interior panel are cut out for a section of the vented garment. In an aspect, this process is repeated for each section of the garment and the sections, once completed at step 2260, are then connected to form the final vented garment.

[0098] At step 2220 the exterior panel and the middle panel are attached together at multiple seams to form an insulated garment panel. The multiple seams are spaced to define boundaries of a plurality of hollow chambers defined by the exterior panel and the middle panel. The hollow chambers can be different sizes and shapes to provide varying levels of insulation.

[0099] At step 2230 exterior openings through the multiple seams are formed. The exterior openings may have varying numbers as well as different sizes and/or different shapes. The openings can be formed via, for example, laser cutting, water jet cutting, mechanical cutting, and the like. Alternatively, when the panels are formed through an engineered weaving or knitting process, the openings may be formed through the weaving or knitting process. At step 2240, interior openings are optionally formed in the interior panel through any of the methods outlined above. The interior openings if, provided, can have different sizes and different shapes.

[0100] At step 2250 the plurality of hollow chambers defined by the seams are filled with a thermally-insulating material, such as down or other synthetic fibers.